

### **REMARKS**

In light of the accompanying Request for Continued Examination, the Applicants request the present amendment be entered for the Examiner's consideration. The pending claims are believed allowable in view of the amendments above and following remarks, and a Notice of Allowance is requested at this time.

#### **Status of Claims**

Claims 1-20 were pending.

Claim 19 has been canceled.

Accordingly, claims 1-18 and 20 are before the Examiner for consideration.

#### **Drawings**

Applicants acknowledge receipt of form PTO-948. Revised drawings are being prepared and will be submitted upon receipt of a Notice of Allowability.

#### **35 U.S.C. § 112 Rejection of Claims 1-20**

In sections 2 and 3 of the Final Office Action, claims 1-20 were rejected under 35 U.S.C. § 112, first paragraph, for failing to comply with the written description requirement. For expediency, the language of note has been removed from claims 1 and 17. Regarding claim 9 ("said pair of opposing rollers being operatively mounted in a step-wise manner"), the Examiner is directed to Section [0052] of the present application, where this feature is discussed. In particular, the rollers being mounted in a "step-wise manner" refers to the outer ends ("exterior sides") 224 of the rollers 212, 214 being offset from one another, as shown in FIGS. 5 and 12, such that their profile in combination resembles a set of steps. This is for purposes of accommodating and aligning "the outwardly extending sealing portion and the lower fold of the fastseam" 100.

Considering Section [0052] and FIGS. 5 and 12, the Applicants respectfully submit that the disclosure of the present application provides adequate support for the language found in claim 9. Accordingly, claim 9 is believed allowable over the rejection under 35 U.S.C. § 112.

**35 U.S.C. § 102(b) Rejection of Claims 1-20 over Knudson**

In section 4 of the Office Action, claims 1-20 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Pat. No. 4,470,186 to Knudson ("Knudson"). As the Examiner is aware, for an anticipation rejection under 35 U.S.C. § 102(b), the prior-art patent must shown each and every element and limitation of the invention as claimed. Here, the Applicants submit that Knudson does not show each and every element and limitation of claims 1-18 and 20 as amended (claim 19 has been canceled), and, therefore, that these claims are allowable.

As shown in, e.g., FIG. 5, the seam closing apparatus of the present invention utilizes a drive roller 212 and an idler roller 214 for closing a seam 100. The idler roller 214 includes an annular groove 218 for engaging the lower bend 220 of the duct seam 100. Because the idler roller 214 abuts the duct 216 during use, the annular groove 218 is located at the end of the idler roller 214. The two rollers 212, 214 are longitudinally offset from one another such that the outer annular surface 222 of the drive roller 212 extends out past the end of the idler roller 214, in a direction away from the body of the seam closing apparatus 200. This allows the outer annular surface 222 of the driver roller 212 to engage the sealing portion 120 of the seam 100 during use. In other words, the offset or stepped configuration of the drive roller 212 and idler roller 214 allows for the seam closing apparatus to simultaneously engage the lower bend 220 and sealing portion 120. Indeed, as stated in the present application, the offset rollers 212, 214 "provide the appropriate orientation, in a step-like fashion, to accommodate and align the outwardly extending sealing portion and the lower fold of the fastseam." Section [0052].

These features are clearly set forth in the amended claims. For example, claim 1 recites "the first annular surface of the first roller extends out past the second exterior side of the second roller for engaging said outwardly extending sealing portion of said duct seam." Claim 1 also recites that the idler roller has "an annular groove formed in the second annular surface proximate the second exterior side." Claims 9 and 17 are similar.

A further aspect of the present invention is that the driver roller 212 may have an angled or tapered profile. For example, as indicated in the drawings, a portion of the driver roller 212 may be frusto-conical in shape, with the narrowest end positioned opposite the groove 218 in the idler roller 214 and the driver roller 212 tapering

outwards slightly to terminate at the exterior side 224 of the driver roller 212. This angled profile facilitates a tight sealing connection between the sealing portion 120 and male portion 124 of the duct 216.

In Knudson, on the other hand, there are no offset rollers as specified in claims 1, 9, and 17. Instead, in Knudson the rollers are aligned with one another, with a duct seam being pressed directly between the two roller surfaces. For example, in the embodiment shown in FIG. 6 in Knudson, the adjacent rollers 21 and 23 are aligned and not offset, i.e., their bottom ends align. Neither has an annular surface that extends out past the end ("exterior side") of the other. This is the same for the elements shown in FIGS. 4, 5, & 7; none of the rollers have an annular surface that extends out past the end of another roller. Further, regarding FIGS. 16 & 17, while roller 322 appears to extend slightly past the end of roller 321, roller 321 does not have a groove located proximate its end/exterior side. Additionally, roller 322 does not have an annular surface that extends "substantially" past the end of roller 321, as specified in the present claims. Instead, the two rollers are almost co-terminal. (As should be appreciated, and as one of ordinary skill in the art would understand, by "substantially" it is meant more than an incidental amount, such that the majority of the annular surface 222 that contacts the duct 216 lies extended out past the end of the idler roller 214.)

Regarding the other references of record:

- U.S. Pat. No. 4,989,308: with reference to FIG. 5, adjacent rollers 15 and 41 are co-terminus.
- U.S. Pat. No. 2,660,909: with reference to FIG. 2, rollers 30 and 40 are co-terminus.
- U.S. Pat. No. 5,189,704: no offset rollers.
- U.S. Pat. No. 5,243,750: no offset rollers.
- U.S. Pat. No. 5,450,879: N/A.
- U.S. Pat. No. 6,056,021: with reference to FIG. 8, neither roller 7A nor 7B has a groove in an annular surface. Also, the rollers 7A and 7B are not axially parallel, i.e., they do not have parallel axes of rotation, as specified in the claims.
- U.S. Pat. No. 6,105,227: no offset rollers.
- U.S. Pat. No. 6,378,184: no offset rollers.

In light of the above, the Applicants respectfully submit that none of the prior art references of record show or suggest each and every element and limitation of the present invention as claimed. In particular, none of the references show a seam closing apparatus having two proximate, axially parallel rollers, where the first roller has an annular surface that extends substantially out past the end of the second roller, and where the second roller has an annular surface with a groove formed therein next to the end of the second roller. Accordingly, claims 1-18 and 20 are believed allowable over the rejection under 35 U.S.C. § 102(b).


### CONCLUSION

In view of the amendments and remarks above, it is respectfully submitted that claims 1-18 and 20 are allowable, and an early action to that effect is earnestly solicited.

The Examiner is invited to contact the undersigned to expedite resolution of any unresolved issues. In particular, should a Notice of Allowance not be forthcoming, the Examiner is requested to phone the undersigned for a telephone interview, an Examiner's amendment, or the like.

Authorization is hereby given to charge our Deposit Account No.13-0235 in the event any additional fees are owed.

Respectfully submitted,

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